

General Conceptual Scheme

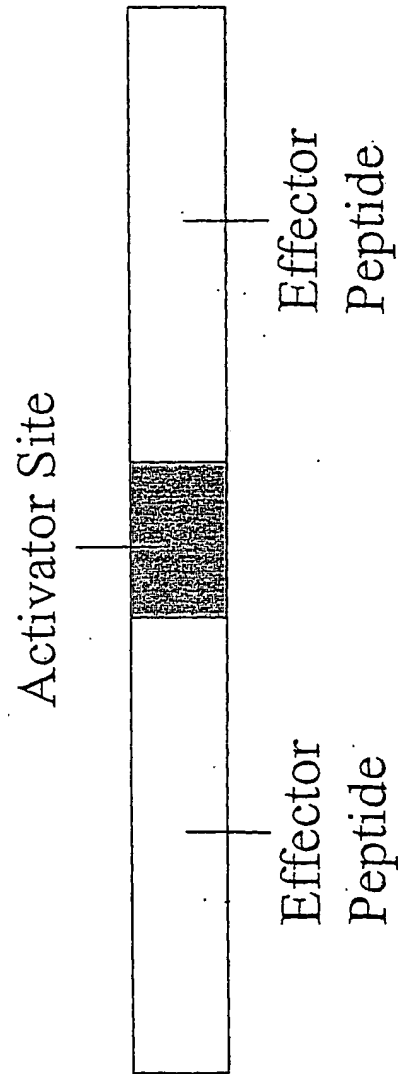


FIGURE 1

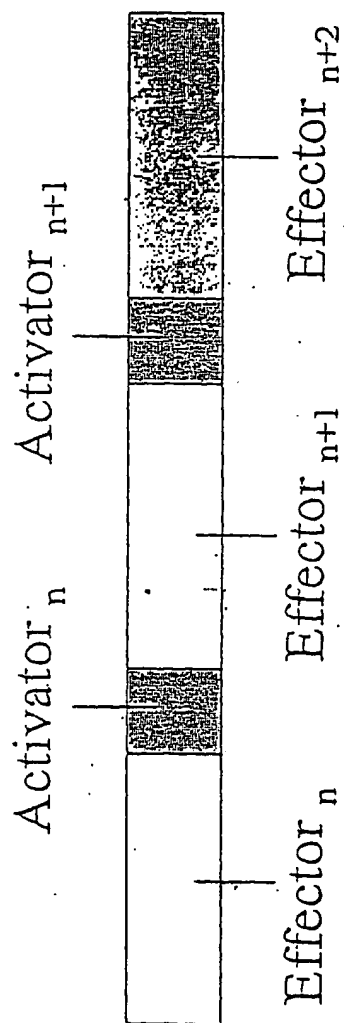
Extrapolated Conceptual Scheme

FIGURE 2

Specific Example: Defensin / IL-8 Mosaic

Thrombin Cleavage Site

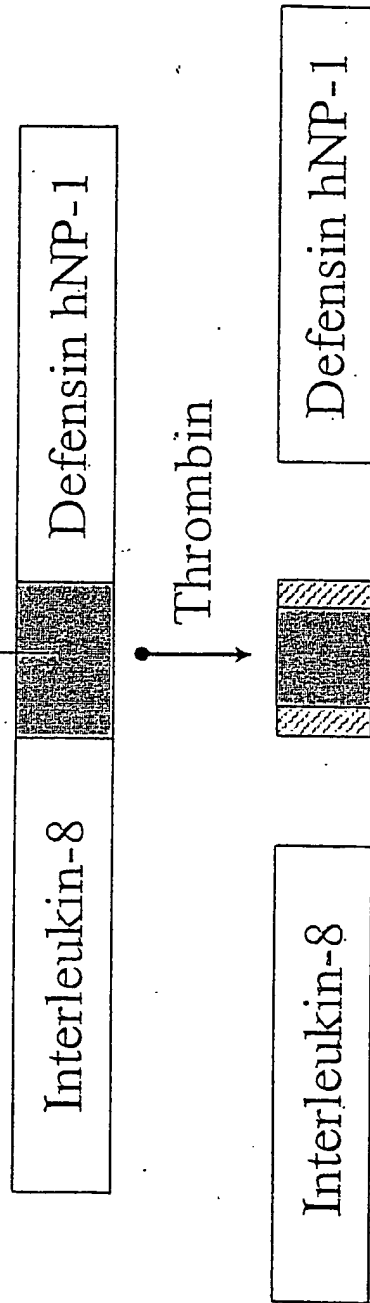


FIGURE 3

Specific Example: Defensin / IL-8 Mosaic

C3 Convertase Cleavage Site

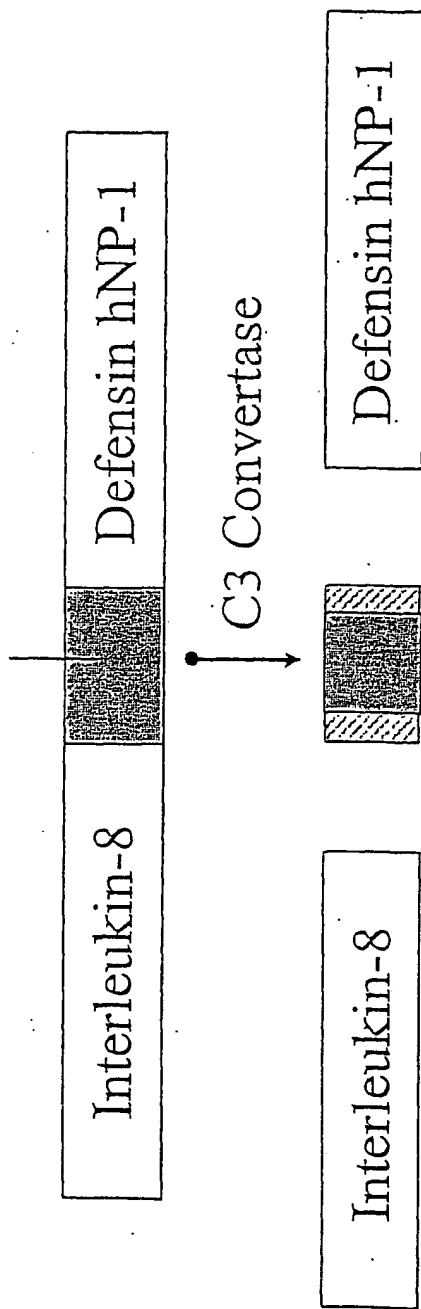


FIGURE 4

General Example: Effector<sub>1</sub> / Effector<sub>n</sub> Mosaic

Strategic Activator / Cleavage Site

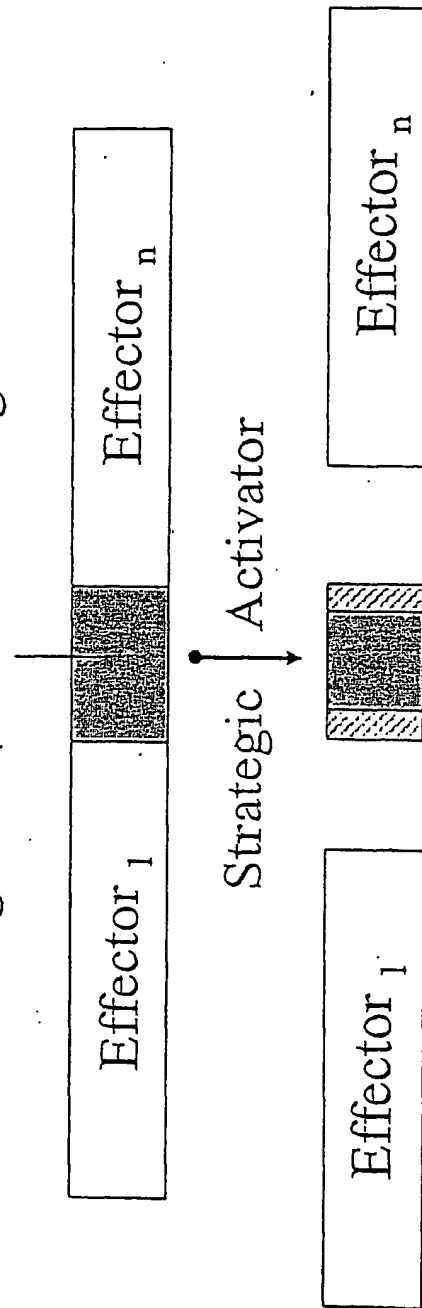


FIGURE 5

General Examples: Effector<sub>1</sub> / Effector<sub>n</sub> Mosaic

Effector 1                      Activator                      Effector 2

Antimicrobial	LPXTG	Antimicrobial
Anti-Toxicity	Signal Process	Antimicrobial
Immunomodulate	Thrombin	Antimicrobial
Antiangiogenesis	MPase	Immunomodulate
Apoptosis	Mitochondrial	Antiangiogenesis

Note: many other permutations on the mosaic concept;  
Activator may also be non-protease (eg., esterase) sites

FIGURE 6A

<u>Examples of Activators</u>	<u>Examples of Effectors</u>
<u>Specific</u>	<u>Specific</u>
Thrombin	Defensins (alpha, beta, theta)
Bradykinin	Cecropins, Magainins
C4b2a	Protegrins, Indolicidins
C3bBb	HIV Viral protein R (VPR)
Elastase	Tissue factors; angiogenesis
Metalloproteinase	RP-like peptides; other APs
<u>General</u>	<u>General</u>
Clotting Cascade Proteases	Antimicrobial peptides
Complement Fixing Proteases	Immunomodulatory peptides
Tumor-Specific Proteases	Antitumor peptides; others

FIGURE 6B

General Conceptual Scheme

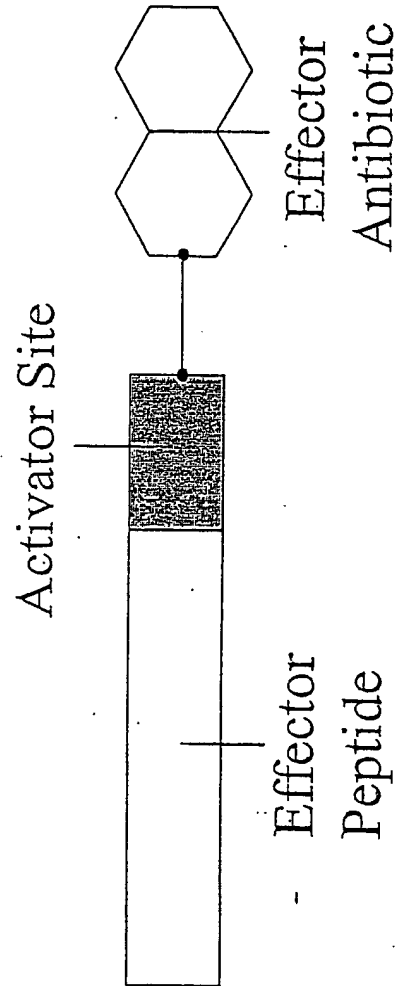


FIGURE 7



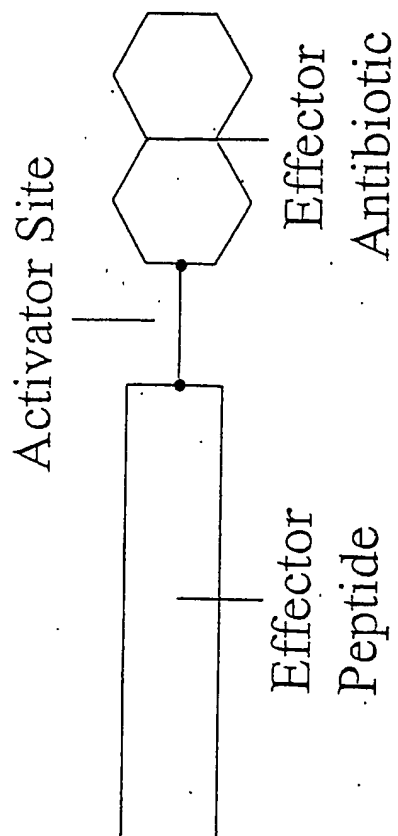
General Conceptual Scheme

FIGURE 8

General Conceptual Scheme

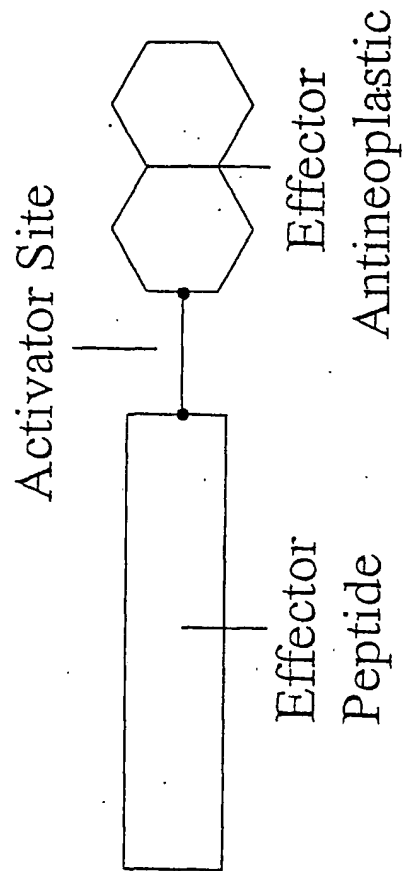


FIGURE 9

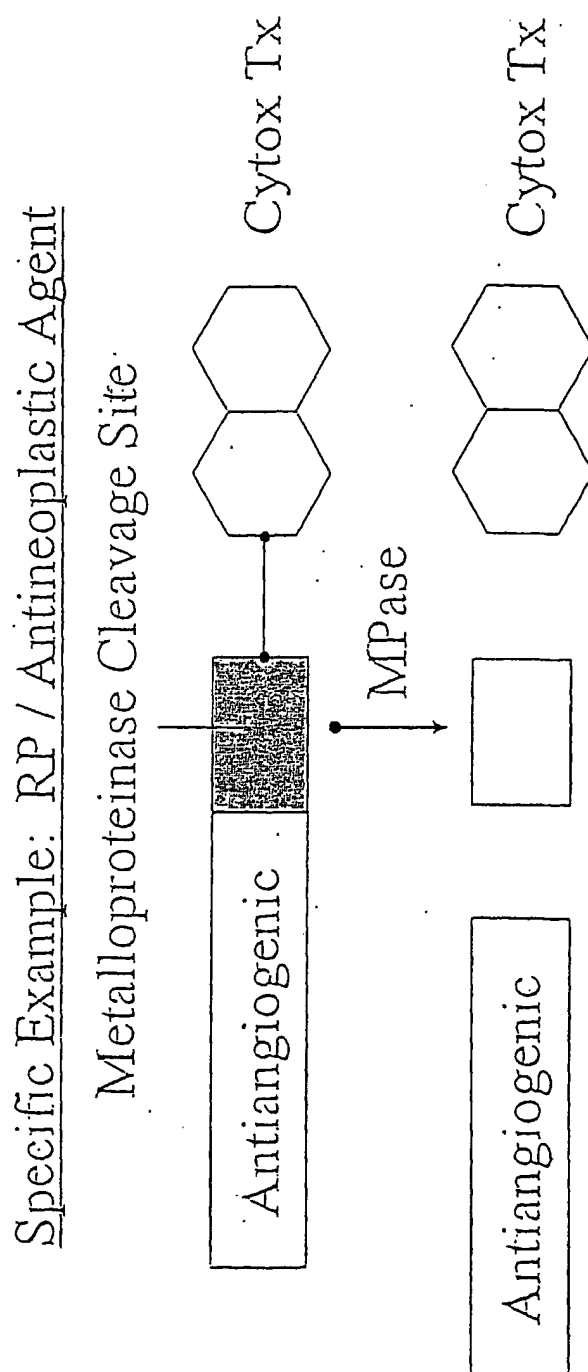


FIGURE 10

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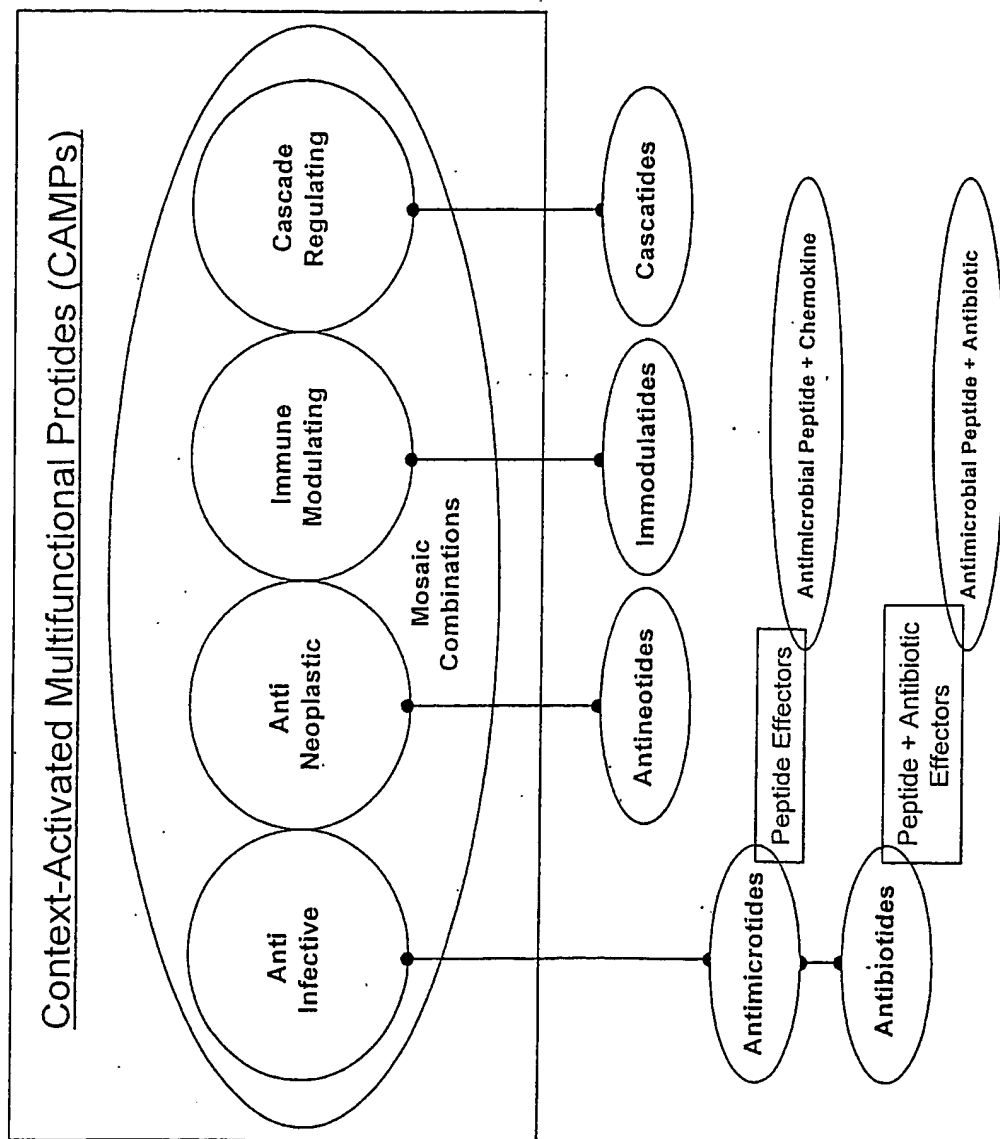


FIGURE 11

<u>Name</u>	<u>Sequence</u>	<u>Activator</u>
PT-1	▼ AKELRCQCIKTYSKEALYKKFKKKLLKSLKRLG [ IL-8 Chemokine Motif ] [ Antimicrobial Peptide Domain ]	V8 Protease
PT-2	▼ AKELRCQCIKTYSKLARSALYKKFKKKLLKSLKRLG [ IL-8 Chemokine Motif ] [ Antimicrobial Peptide Domain ]	C3 Convertase
PT-3	▼ AKELRCQCIKTYSKLVPRGSALYKKFKKKLLKSLKRLG [ IL-8 Chemokine Motif ] [ Antimicrobial Peptide Domain ]	Thrombin
PT-4	▼ AKELRCQCIKTYSKPQGIAGQALYKKFKKKLLKSLKRLG [ IL-8 Chemokine Motif ] [ Antimicrobial Peptide Domain ]	MMP-9

Key: ▼ denotes activator-specific cleavage site

FIGURE 12